

## PATENT ABSTRACTS OF JAPAN

(11)Publication number:

2000-164563

(43) Date of publication of application: 16.06.2000

(51)Int.CI.

H01L 21/3065

(21)Application number: 10-335307

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(22)Date of filing:

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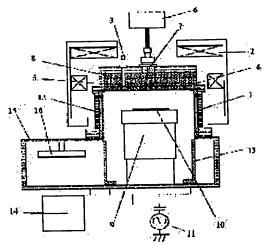
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## (54) PLASMA PROCESSING DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To efficiently form high density plasma necessary for etching an oxide film, from the viewpoint of energy saving and costs reduction. SOLUTION: Microwave of a UHF band are emitted from the periphery of a disc-like plate antenna 5 to generate plasma due to electronic cyclotron resonance, and also the plate thickness of a gas supply plate 4 provided on a face at the plasma side of the antenna 5 is increased by more than the skin depth of the microwave. Since an oxide film is etched by the use of low electronic temperature high-density plasma, etching results of superior characteristics are obtained, and energy-saving and cost-reducing device can be obtained.

26.11.1998



## **LEGAL STATUS**

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]